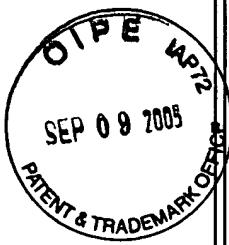


JW # 2825

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicant(s): Manjunath Haritsa et al.

Assignee: Sun Microsystems, Inc.

Title: SIMULATION BY PARTS METHOD FOR GRID-BASED CLOCK DISTRIBUTION DESIGN

Serial No.: 09/982,458 Filed: October 17, 2001

Examiner: Binh C. Tat Group Art 2825  
Unit:

Docket No.: P-5404

Monterey, CA  
September 7, 2005

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT  
UNDER § 1.97(c) WITH FEE

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant(s) wish to call the following documents (a copy of each is enclosed) to the attention of the Examiner.

**U.S. PATENT DOCUMENTS**

|    | DOCUMENT NUMBER | DATE     | NAME            |
|----|-----------------|----------|-----------------|
| 1) | 5,387,885       | 02/07/95 | Chi             |
| 2) | 5,467,040       | 11/14/95 | Nelson et al.   |
| 3) | 5,581,473       | 12/03/96 | Rusu et al.     |
| 4) | 5,644,498       | 07/01/97 | Joly et al.     |
| 5) | 5,656,963       | 08/12/97 | Masleid et al.  |
| 6) | 5,778,216       | 07/07/98 | Venkatesh       |
| 7) | 5,864,487       | 01/26/99 | Merryman et al. |
| 8) | 5,896,055       | 04/20/99 | Toyonaga et al. |
| 9) | 5,917,729       | 06/29/99 | Naganuma et al. |

09/12/2005 EAYALEM1 00000022 09982458  
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|     |              |          |                 |
|-----|--------------|----------|-----------------|
| 10) | 5,963,729    | 10/05/99 | Aji et al.      |
| 11) | 5,974,245    | 10/26/99 | Li et al.       |
| 12) | 5,994,924    | 11/30/99 | Lee et al.      |
| 13) | 6,088,254    | 07/11/00 | Kermani         |
| 14) | 6,204,713    | 03/20/01 | Adams et al.    |
| 15) | 6,205,572    | 03/20/01 | Dupenloup       |
| 16) | 6,260,182    | 07/10/01 | Mohan et al.    |
| 17) | 6,263,478    | 07/17/01 | Hahn et al.     |
| 18) | 6,289,412    | 09/11/01 | Yuan et al.     |
| 19) | 6,289,498    | 09/11/01 | Dupenloup       |
| 20) | 6,378,080    | 04/23/02 | Anjo et al.     |
| 21) | 6,442,740    | 08/27/02 | Kanamoto et al. |
| 22) | 6,457,159    | 09/24/02 | Yalcin et al.   |
| 23) | 2003/0074175 | 04/17/03 | Haritsa et al.  |
| 24) | 2003/0074643 | 04/17/03 | Schmitt et al.  |

#### FOREIGN DOCUMENTS

|    | DOCUMENT NUMBER | DATE     | COUNTRY |
|----|-----------------|----------|---------|
| 1) | WO 95/34036     | 12/14/95 | PCT     |

#### OTHER DOCUMENTS

|    |  |
|----|--|
| 1) | B. Lampson et al., "A Processor for a High-Performance Personal Computer", <u>Seventh Annual Symposium on Computer Architecture</u> , IEEE, pages 146-160, May 1980.   |
| 2) | C-S Wu et al., "An Automatic Cell Characterization Environment for Cell-Based Design Methodology", IEEE, pages 326-329, May 1993.  |
| 3) | H. Fair et al., "Clocking Design and Analysis for a 600MHz Alpha Microprocessor", <u>IEEE International Solid State Circuits Conference</u> , IEEE, vol. 41, pages 398-399, 473, February 1998. (XP000862228). |
| 4) | J. Burkis, "Clock Tree Synthesis for High Performance ASICs", IEEE, pages 9-8.1 - 9-8.3, August 1991.  |
| 5) | P. Larsson et al., "Impact of Clock Slope on True Single Phase Clocked (TSPC) CMOS Circuits", <u>IEEE Journal of Solid-State Circuits</u> , IEEE, Vol. 29, No.6, pages 723-726, June 1994.                     |
| 6) | P.J. Restle et al., "A Clock Distribution Network for Microprocessors", <u>2000 Symposium on VLSI Circuits</u> , IEEE, pages 184-187, April 2000.  |

|    |  |
|----|--|
| 7) | R.B. Mueller-Thuns et al., "Parallel Switch-Level Simulation for VLSI", <u>Proceedings of the European Conference on Design Automation</u> , IEEE, pages 324-328, February 1991. (XP010093616).  |
| 8) | S. Boon et al., "High Performance Clock Distribution for CMOS ASICs", <u>Custom Integrated Circuits Conference</u> , IEEE, pages 15.4.1 - 15.4.5, May 1989. (XP010082184).                       |
| 9) | J-S Yim et al., "A Floorplan-based Planning Methodology for Power and Clock Distribution in ASICs", <u>Proceedings ACM/IEEE Conference on Design Automation</u> , ACM, pages 766-771, June 1999. |

A PTO form 1449 listing these documents is enclosed.

Citation of the above documents shall not be construed as:

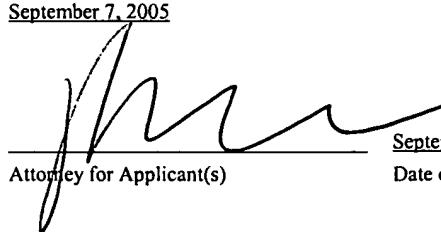
1. an admission that the documents are necessarily prior art with respect to the instant invention;
2. a representation that a search has been made, other than as described above; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

Enclosed herewith is a check in the amount of \$180.00 payable to the Director of the United States Patent and Trademark Office, which is the amount for submission of an Information Disclosure Statement given in 37 C.F.R. § 1.17(p).

The Commissioner is hereby authorized to charge any additional fees, which may be required to consider this paper, or credit any overpayment to Deposit Account No. 50-0553.

#### CERTIFICATE OF MAILING

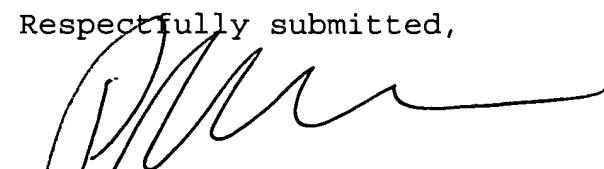
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 7, 2005



Attorney for Applicant(s)

September 7, 2005  
Date of Signature

Respectfully submitted,



Philip McKay  
Attorney for Applicant(s)  
Reg. No. 38,966  
(831) 655-0880

| Form PTO-1449<br><br>U.S. PATENT & TRADEMARK OFFICE<br>INFORMATION DISCLOSURE CITATION<br>IN AN APPLICATION<br><small>Use several sheets if necessary.</small>  |    |  |                 |                 | Atty Docket No.<br>P-5404                | Serial No.<br>09/982,458 |                            |    |
|---|----|--|-----------------|-----------------|--|--------------------------|----------------------------|----|
|   |    |  |                 |                 | Applicant(s)<br>Manjunath Haritsa et al. |                          |                            |    |
|   |    |  |                 |                 | Filing Date<br>October 17, 2001          | Group<br>2825            |                            |    |
| <b>U. S. PATENT DOCUMENTS</b>   |    |  |                 |                 |  |                          |                            |    |
| EXAMINER INITIAL  |    | DOCUMENT NUMBER  | DATE            | NAME            | CLASS                                    | SUBCLASS                 | FILING DATE IF APPROPRIATE |    |
|   | AA | 5,387,885  | 02/07/95        | Chi             | 333                                      | 100                      |                            |    |
|   | AB | 5,467,040  | 11/14/95        | Nelson et al.   | 327                                      | 276                      |                            |    |
|   | AC | 5,581,473  | 12/03/96        | Rusu et al.     | 364                                      | 490                      |                            |    |
|   | AD | 5,644,498  | 07/01/97        | Joly et al.     | 364                                      | 489                      |                            |    |
|   | AE | 5,656,963  | 08/12/97        | Masleid et al.  | 327                                      | 297                      |                            |    |
|   | AF | 5,778,216  | 07/07/98        | Venkatesh       | 395                                      | 558                      |                            |    |
|   | AG | 5,864,487  | 01/26/99        | Merryman et al. | 364                                      | 491                      |                            |    |
|   | AH | 5,896,055  | 04/20/99        | Toyonaga et al. | 327                                      | 295                      |                            |    |
|   | AI | 5,917,729  | 06/29/99        | Naganuma et al. | 364                                      | 491                      |                            |    |
|   | AJ | 5,963,729  | 10/05/99        | Aji et al.      | 395                                      | 500.06                   |                            |    |
|   | AK | 5,974,245  | 10/26/99        | Li et al.       | 395                                      | 500.11                   |                            |    |
|   | AL | 5,994,924  | 11/30/99        | Lee et al.      | 326                                      | 93                       |                            |    |
| <b>FOREIGN PATENT DOCUMENTS</b>   |    |  |                 |                 |  |                          |                            |    |
|   |    |  |                 |                 |  |                          | Translation                |    |
|   |    | DOCUMENT NUMBER  | DATE            | COUNTRY         | CLASS                                    | SUBCLASS                 | YES                        | NO |
|   | AM | WO 95/34036  | 12/14/95        | PCT             |  |                          |                            |    |
| <b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>   |    |  |                 |                 |  |                          |                            |    |
|   | AN | B. Lampson et al., "A Processor for a High-Performance Personal Computer", <u>Seventh Annual Symposium on Computer Architecture</u> , IEEE, pages 146-160, May 1980.   |                 |                 |  |                          |                            |    |
|   | AO | C-S Wu et al., "An Automatic Cell Characterization Environment for Cell-Based Design Methodology", IEEE, pages 326-329, May 1993.  |                 |                 |  |                          |                            |    |
|   | AP | H. Fair et al., "Clocking Design and Analysis for a 600MHz Alpha Microprocessor", <u>IEEE International Solid State Circuits Conference</u> , IEEE, vol. 41, pages 398-399, 473, February 1998. (XP000862228). |                 |                 |  |                          |                            |    |
|   | AQ | J. Burkis, "Clock Tree Synthesis for High Performance ASICs", IEEE, pages 9-8.1 - 9-8.3, August 1991.  |                 |                 |  |                          |                            |    |
|   | AR | P. Larsson et al., "Impact of Clock Slope on True Single Phase Clocked (TSPC) CMOS Circuits", <u>IEEE Journal of Solid-State Circuits</u> , IEEE, Vol. 29, No.6, pages 723-726, June 1994.                     |                 |                 |  |                          |                            |    |
| Examiner  |    |  | Date Considered |                 |  |                          |                            |    |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s). |    |  |                 |                 |  |                          |                            |    |

| <p><b>Form PTO-1449</b></p> <p><b>INFORMATION DISCLOSURE CITATION</b><br/><b>IN AN APPLICATION</b></p> <p>SEP 09 2005<br/>U.S. PATENT &amp; TRADEMARK OFFICE<br/>Use several sheets if necessary)</p>  |    |  |                 |                 | Atty Docket No.          | Serial No. |                            |    |
|--|----|--|-----------------|-----------------|--------------------------|------------|----------------------------|----|
|  |    |  |                 |                 | P-5404                   | 09/982,458 |                            |    |
|  |    |  |                 |                 | Applicant(s)             |            |                            |    |
|  |    |  |                 |                 | Manjunath Haritsa et al. |            |                            |    |
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| <b>U. S. PATENT DOCUMENTS</b>  |    |  |                 |                 |                          |            |                            |    |
| EXAMINER INITIAL   |    | DOCUMENT NUMBER  | DATE            | NAME            | CLASS                    | SUBCLASS   | FILING DATE IF APPROPRIATE |    |
|  | AA | 6,088,254  | 07/11/00        | Kermani         | 365                      | 63         |                            |    |
|  | AB | 6,204,713  | 03/20/01        | Adams et al.    | 327                      | 295        |                            |    |
|  | AC | 6,205,572  | 03/20/01        | Dupenloup       | 716                      | 5          |                            |    |
|  | AD | 6,260,182  | 07/10/01        | Mohan et al.    | 716                      | 12         |                            |    |
|  | AE | 6,263,478  | 07/17/01        | Hahn et al.     | 716                      | 10         |                            |    |
|  | AF | 6,289,412  | 09/11/01        | Yuan et al.     | 711                      | 11         |                            |    |
|  | AG | 6,289,498  | 09/11/01        | Dupenloup       | 716                      | 18         |                            |    |
|  | AH | 6,378,080  | 04/23/02        | Anjo et al.     | 713                      | 500        |                            |    |
|  | AI | 6,442,740  | 08/27/02        | Kanamoto et al. | 716                      | 6          |                            |    |
|  | AJ | 6,457,159  | 09/24/02        | Yalcin et al.   | 716                      | 6          |                            |    |
|  | AK | 2003/0074175   | 04/17/03        | Haritsa et al.  | 703                      | 19         |                            |    |
|  | AL | 2003/0074643   | 04/17/03        | Schmitt et al.  | 716                      | 6          |                            |    |
|  | AM |  |                 |                 |                          |            |                            |    |
| <b>FOREIGN PATENT DOCUMENTS</b>  |    |  |                 |                 |                          |            |                            |    |
|  |    |  |                 |                 |                          |            | Translation                |    |
|  |    | DOCUMENT NUMBER  | DATE            | COUNTRY         | CLASS                    | SUBCLASS   | YES                        | NO |
|  | AN |  |                 |                 |                          |            |                            |    |
| <b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>  |    |  |                 |                 |                          |            |                            |    |
|  | AO | P.J. Restle et al., "A Clock Distribution Network for Microprocessors", <u>2000 Symposium on VLSI Circuits</u> , IEEE, pages 184-187, April 2000.  |                 |                 |                          |            |                            |    |
|  | AP | R.B. Mueller-Thuns et al., "Parallel Switch-Level Simulation for VLSI", <u>Proceedings of the European Conference on Design Automation</u> , IEEE, pages 324-328, February 1991. (XP010093616).  |                 |                 |                          |            |                            |    |
|  | AQ | S. Boon et al., "High Performance Clock Distribution for CMOS ASICs", <u>Custom Integrated Circuits Conference</u> , IEEE, pages 15.4.1 - 15.4.5, May 1989. (XP010082184).                       |                 |                 |                          |            |                            |    |
|  | AR | J-S Yim et al., "A Floorplan-based Planning Methodology for Power and Clock Distribution in ASICs", <u>Proceedings ACM/IEEE Conference on Design Automation</u> , ACM, pages 766-771, June 1999. |                 |                 |                          |            |                            |    |
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